**Additional Practice Problems - Unit 13**

**Quiz #1 –**

1. Name 4 properties of acids and 4 properties of bases.
2. Explain the difference between an Arrhenius acid and an Arrhenius base.
3. Explain the difference between a Bronsted-Lowry acid & a Bronsted-Lowry base.
4. Identify A, B, CA, & CB: HF + H2O 🡨🡪 F- + H3O+
5. Identify A, B, CA, & CB: CH3NH2 + H2O 🡨🡪 CH3NH3+ + OH-

**Quiz #2 –**

1. Name the following:
   1. NH3 c. H2SO3
   2. HBr d. H2CO3
2. Write the formula for the following:
   1. hydroiodic acid c. phosphoric acid
   2. nitric acid d. acetic acid

**Quiz #3 –**

1. Explain the difference between strong acids and weak acids.
2. Why are weak acids weak electrolytes?
3. How can an acid be both weak and concentrated?
4. The base with the (larger or smaller) Kb is stronger.
5. (Strong or weak) acids ionize 100% in water.
6. List the 6 strong acids.

**Quiz #4 –**

1. Acidic or Basic?
   1. pH = 13
   2. [H3O+] = 1.5 x 10-4
   3. pOH = 10
   4. 5.0 x 10-3 M HCl
   5. [OH-] = 9.5 x 10-2
2. If pH is 8, calculate pOH, [H3O+], and [OH-].

**Quiz #5 –**

1. What is a titration?
2. How do indicators tell you whether something is acidic or basic?
3. In a titration of a strong acid with a strong base, what should the pH range of your indicator be?
4. When the titration reaction is completely neutral, what has been reached?
5. A 30.0 mL sample of 0.25 M HCl is titrated with 49.0 mL of Ca(OH)2. What is the molarity of the base solution?